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In the Supreme Court of the United States

OCTOBER TERM, 1973

No.

JOSEPH RUSSO,
PETITIONER,
v.
UNITED STATES OF AMERICA,
RESPONDENT.

PETITION FOR A WRIT OF CERTIORARI TO THE UNITED STATES COURT OF APPEALS FOR THE SIXTH CIRCUIT

The petitioner, Dr. Joseph Russo, respectfully prays that a writ of certiorari issue to review the judgment and opinion of the United States Court of Appeals for the Sixth Circuit entered on July 6, 1973.

Opinion Below

The opinion of the Court of Appeals, not yet reported, appears in Appendix A hereto.[1] No opinion was rendered by the District Court for the Eastern District of Michigan.

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[1] Citations to the three Appendices attached to this petition are in the form "App. A. 31a" etc. A certified copy of the Defendant-Appellant's Appendix prepared for the use of the court below has been furnished to the Clerk of this Court, and references to it are in the form "A. 54."

Jurisdiction

The judgment of the Court of Appeals for the Sixth Circuit was entered on July 6, 1973, affirming petitioner's conviction dated November 8, 1971. The Court of Appeals denied a timely petition for rehearing on September 5, 1973 (App. B), and this petition was filed within 30 days of that date. The jurisdiction of this Court is invoked under 28 U.S.C. § 1254(1).

Questions Presented

1. Was petitioner denied a fair trial by the admission of computer-produced statistical summaries from which mathematically invalid inferences of guilt were suggested when the foundation was insufficient and petitioner was not given any opportunity to analyze and challenge the underlying data, confront the preparers of the computer evidence, or present witnesses on his own behalf?
2. Is a joint trial improper when the joinder does not meet the standard prescribed by Criminal Rule 8(b), there is no evidence that the jury found that defendants jointly devised a common illegal scheme, and petitioner was prejudiced by the admission of testimony unrelated to the charge against him?
3. Was the petitioner denied his constitutional right to a speedy trial by a delay of 688 days between the indictment and the trial that was not caused by him and resulted in severe prejudice?

Constitutional Provisions and Federal Rules Involved

The constitutional provisions involved are the Fifth and Sixth Amendments to the United States Constitution and

the Federal Rules of Criminal Procedure involved are Rules 8 and 14. The provisions are printed in Appendix C.

Statement of the Case

On October 16, 1969, petitioner, Dr. Joseph L. Russo, was indicted with Dr. Donald L. Lieberwitz under the federal mail fraud statute, 18 U.S.C. § 1341. The government charged the doctors with devising a scheme to defraud Blue Shield of Michigan "by filing claims for services not performed on patients on dates specified and for obtaining money from such organization by false and fraudulent pretenses and representations, well knowing at the time that the pretenses and representations would be and were false when made." The services involve two types of medical procedures—the aspiration of a bursa near various joints and the arthrocentesis of certain joints—by which a needle is inserted and fluid is withdrawn from or injected into the body. Each count of the indictment was divided into two paragraphs: the first alleged that the defendants "devised and intended to devise a scheme and artifice to defraud," and the second recited that either one or the other defendant knowingly and willfully caused the mails to be used to perpetrate the scheme. No conspiracy was charged.

Petitioner was not brought to trial until September 14, 1971, more than twenty-three months after indictment. At trial, evidence was introduced showing that Dr. Russo operated a clinic in the basement of a building in the inner city of Detroit and serviced hundreds of patients per day—about 50,000 patients per year. Medical services were very limited in the area and the clinic remained open daily until there were no more patients, which usually was not until late at night. Dr. Russo employed at least two other

doctors—one being his codefendant, Dr. Lieberwitz. Each doctor worked in his own cubicle, taking patients as they came and collecting fees for his services. Dr. Lieberwitz paid a portion of his gross receipts to Dr. Russo, but did not contribute to any of the office's overhead expenses and was not a partner in the practice.

No direct evidence was introduced showing any common plan or scheme between the two doctors with regard to securing payments from Blue Shield. Both defendants testified that because of the pressure of their work, they seldom saw each other and never discussed their billing practices. Indeed, the indictment did not charge and the proof did not suggest that they worked in concert.

As a result of the joint trial, the standard applied in admitting evidence was the same as in conspiracy cases—one considerably more permissive than if petitioner had been tried alone. Accordingly, a wide range of highly prejudicial testimony concerning so-called "similar" acts, which had absolutely nothing to do with the charges in the indictment, the conduct of codefendant Lieberwitz, and other matters were admitted.

On Friday, September 24, 1971, the prosecution sought to introduce computerized statistical summaries prepared by Blue Shield purporting to show the number of claims paid by it in 1967 for each of the compensable medical procedures covered by its contracts with Michigan doctors ("Statistical Run"). This was the first intimation defense counsel had of the existence of these computerized statistics and how they were to be utilized.[2] On Monday, September

[2] On September 24th, the district judge commented that the defense had "information two weeks ago" about the computer evidence. *This statement is not sustained by the record.* The judge appears to be referring to a colloquy eight days earlier (A. 127) during which general mention was made of profiles of the defendants prepared by Blue Shield and certain undescribed statistics. But the Statistical Run never was referred to at that time and

27th, arguments on admissibility were presented; despite the fact that the only foundation offered for the computer summaries was the testimony of two Blue Shield employees who had nothing to do with their preparation, the trial court ruled in the government's favor.

The following day, Tuesday, September 28th, the prosecution was allowed to compare figures in the Statistical Run for five procedures relating to aspirations and arthrocenteses with figures, also prepared by Blue Shield, on statistical profiles of both defendants summarizing the number of these procedures for which each received payment in 1967. It then suggested that guilt might be inferred from this comparison. Without any showing as to the comprehensiveness of the Statistical Run—either in terms of doctors or procedures covered—the government, in effect, indicated that a picture of the "average" Michigan doctor could be secured by dividing the totals for each of the five relevant procedures listed in the summaries by the number of doctors in Michigan. Since the difference between that figure and the number of procedures for which defendants had been paid was striking, the inference the jury was invited to draw was that the doctors could not have performed some of the services for which they had been compensated.

Defense counsels' attempts to gain access to the underlying data, to the Blue Shield computer, or to the personnel who had prepared the statistics were rebuffed by the trial court (A. 198-199). Thus, the defense was limited to a spur-

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there was no mention of computer summaries, computer evidence, statewide statistics, or anything else that would suggest that defense counsel were going to be confronted with the showing made by the prosecution. The government never mentioned computer-based evidence or statistics during the discovery process (A. 26-32) and did not include the Blue Shield employees in the list of witnesses provided at the pretrial proceedings held on March 22, 1971.

of-the-moment cross-examination of the two prosecution witnesses who presented the summaries and whose identity had not been revealed prior to trial.

By way of defense, numerous patients testified that they had received the treatment indicated on the Doctor Service Reports ("DSR's") the defendants had filed with Blue Shield as requests for payment. This evidence, which was essential to counteract the prosecution's statistical showing, was cut off by the trial court as being cumulative, despite the fact that other witnesses were available.

The government withdrew eight counts during the trial. The jury found the petitioner guilty on 28 counts and his codefendant guilty on 15 counts.[3] They were not jointly convicted under any count.

A two-judge panel of the Sixth Circuit affirmed, the third, Judge Kent, having died after argument but without participating in the decision. Among other things, it rejected petitioner's prejudicial misjoinder contention because the "pattern of similarity" between the acts of both defendants was sufficient to indicate the existence of a joint scheme, although there is no clear evidence that the jury so found, and because no "unqualified" motion to sever had been made.[4] With regard to the challenges to the computer-based evidence, statistical proof, and suggested inferences, the court concluded that the Statistical Run fell within the business records statute, 28 U.S.C. § 1732, that an adequate foundation was provided for its admission,

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[3] Dr. Lieberwitz was fined and received a suspended sentence. He has not appealed.

[4] At a pretrial conference on March 22, 1971, petitioner moved for a separate trial if the government intended to offer in evidence any alleged statement or confession of his codefendant (A. 22). Throughout the trial petitioner's counsel objected to the admission of evidence that did not relate to him.

that defense counsel had been informed of the statistics prior to trial,[5] and that the jury properly could have concluded from those figures that the petitioner did not perform the particular services for which he billed Blue Shield. Although the point was raised, the Sixth Circuit's opinion did not address the question whether Dr. Russo was denied his constitutional right to a speedy trial. Rehearing was denied by the two-judge panel, without opinion.

Reasons for Granting Writ

I. Fair Trial—the Misuse of Computer Evidence and Statistical Summaries.

This case involves the fundamental question of how to protect procedural and substantive fairness in criminal cases against the overzealous or uneducated invocation of modern technology and the misuse of scientific, technical, or economic proof. Neither the District Court nor the Court of Appeals appreciated the significance of this problem; they simply acquiesced in the admission of computer-produced statistical summaries without a proper foundation, allowed the prosecution to make statistical comparisons and draw inferences therefrom that were mathematically unsound and legally irrelevant, and denied petitioner any semblance of an opportunity to analyze this data, to gain access to vital information and witnesses, and to present

[5] This finding clearly was based on a misreading of the record. The Court of Appeals apparently relied on the colloquy described in Note 2 for its conclusion (App. A. 22a). The court also stated that petitioner had an adequate opportunity to prepare since he had been given the Statistical Run in response to the request for particulars (App. A. 21a). *This statement is unsupported by the record.* This material never was mentioned either in the government's discovery response (A. 26-32) or in the pretrial proceedings. *Petitioner was not given a copy of the Run until trial.*

his defense. The result was a trial totally devoid of fairness in which principles of evidentiary relevance and reliability were misapplied, due process and fair trial were violated, the rights to confront and present witnesses were ignored, and the presumption of innocence was emasculated.

The issues underlying this case have extremely broad implications. Computers have become pervasive in our society and the resort to computer-based evidence is on the rise, as also is true of mathematical, statistical, and other forms of scientific proof. These trends are inevitable given today's knowledge explosion, the interdisciplinary character of contemporary legal education, and the nature of many disputes currently reaching the courts. Yet, the ability to evaluate these new forms of evidence as well as to draw sound conclusions from them actually may be declining because of the increased expertise now necessary to comprehend many fields of learning. Consequently, guidance from this Court on the conditions to be imposed on the introduction and use of scientific and technical proof is urgently needed.

A. *Due Process—the Use of Statistics to Suggest Unwarranted Inferences of Guilt.*

The prosecution's statistical display at trial had a superficially appealing logic to it (A. 321-326). As described earlier (p. 5), it suggested that the jury use the Blue Shield Statistical Run to compare the number of times the "average" Michigan doctor had been paid under the five relevant code numbers with the number of times Dr. Russo had been paid. Because the difference would appear striking, an inference of nonperformance would follow. To insure that this deceptively simple syllogism had its effect, the government reminded the jury of it several times.

Indeed, in his closing argument the prosecutor suggested that the inference not only was permissible, but that it was logically compelled (A. 412-413).

But the Blue Shield statistics do not reflect anything approximating all the aspirations or arthrocenteses, let alone comparable medical procedures, performed by Michigan doctors during 1967—an impression the government clearly tried to convey (A. 195, 412-413). They include only the claims *actually reported to and paid by* Blue Shield *under five particular code numbers.* The entire presentation was grossly misleading for several reasons.

First, during 1967 only 56 per cent of Michigan's doctors were directly participating in the Blue Shield program and regularly filing claims (A. 225). In addition, only 50 per cent of the people in Michigan were covered by Blue Shield (A. 332). Thus, at least four times as many bursa aspirations and arthrocenteses may have been performed than are reflected in the 1967 Statistical Run.

Second, the figures included only payments made under five particular code numbers. Since the amounts involved are very small—as low as $4.50—doctors who did not perform these procedures frequently or who, unlike petitioner, could rely on being paid directly by financially viable patients and were not dependent on Blue Shield, would not devote the time, energy, and staff resources necessary to fill out the forms and to file the claims. Since the prosecution, despite repeated requests, offered no evidence indicating how many Michigan doctors submitted claims under the relevant code numbers in 1967, the Statistical Run may reflect payments to only a handful of physicians.

Third, approximately 8,000 code numbers are used by Michigan doctors for filing claims. Dr. Russo almost invariably reported the services involved in this case under five particular numbers. Other doctors apparently reported the same and related procedures under different numbers

(A. 243, 323-330). How many other numbers might have been used for equivalent services is impossible to determine since the prosecution and the trial court consistently limited the inquiry to the five numbers Dr. Russo used.

Fourth, the treatments employed by Dr. Russo for bursitis and arthritis are not the procedures used by many segments of the medical community. There appear to be numerous other possible procedures, none of which could be reported under the five Blue Shield numbers used by petitioner, or, for that matter, be included anywhere in the supposedly statewide and comprehensive Statistical Run.

In reality the procedures recorded in the Run revealed only the tip of a numerical iceberg. To determine the "average" doctor's practice would have required a significantly more embracive and sophisticated demonstration than the simplistic comparison employed in this case. Yet unless this Court corrects the naive acceptance of the government's showing by the courts below, there is every likelihood that other prosecutions will be founded on credulous statistical sleights of hand.

Not only did the government's use of statistics give a totally false picture of the "average" doctor, but, as the record shows, Dr. Russo's strikingly unique practice could not be considered "average"; comparing him with an "average" was itself grossly misleading. The unchallenged testimony indicates that Dr. Russo probably works more days and longer hours, has more patients, and encounters bursa and joint ailments more frequently than any other doctor in the state.

In any event, the mathematical demonstration was not relevant to the question whether petitioner was guilty or innocent. By what permissible reasoning process could a jury conclude that because Dr. Russo had been paid for a substantial number of procedures, he was guilty of the 34 specific acts of nonperformance charged in the indictment?

If the case involved heart transplants rather than bursa and joint punctures, the fact that a doctor had been paid for four transplants and only four transplants were recorded in the Statistical Run would not give rise to an inference of nonperformance.

The prosecution's presentation and speculative inference only served to distract the jury from its primary mission of weighing the factual evidence bearing on guilt or innocence. It was reversible error to allow the government to use statistical inferences as an aid in discharging its burden of proving guilt beyond a reasonable doubt when it did not demonstrate the validity or relevance of its numerical comparison. The presumption of innocence cannot be overcome so lightly. This Court must establish safeguards against the mischievous use of statistical proof and prejudicial speculative inferences based thereon.

The importance of imposing limitations on the use of this kind of proof is demonstrated by four state supreme court cases reversing convictions based in part on probability evidence or mathematical demonstrations. In perhaps the most famous of them, *People* v. *Collins*, 68 Cal. 2d 319, 66 Cal. Rptr. 497, 438 P. 2d 33 (1968), the prosecutor introduced statistics to demonstrate that only one in twelve million could match the description of the two people who had participated in a robbery. The California Supreme Court reversed, stating:

> ". . . the testimony and the manner in which the prosecution used it distracted the jury from its proper and requisite function of weighing the evidence on the issue of guilt, encouraged the jurors to rely upon an engaging but logically irrelevant expert demonstration, foreclosed the possibility of an effective defense by an attorney apparently unschooled in mathematical refinements, and placed the jurors and defense counsel

> at a disadvantage in sifting relevant facts from inapplicable theory." *Id.*, at 325, 66 Cal. Rptr., at 502, 438 P. 2d, at 38.

To the same effect are *New Mexico* v. *Sneed*, 76 N.M. 349, 414 P. 2d 858 (1966), and *New York* v. *Risley*, 214 N.Y. 75, 108 N.E. 200 (1915).

The fourth case, *State* v. *Konviser*, 57 N.M. 418, 259 P. 2d 785 (1953), presents a situation strikingly analogous to the instant case in which an embezzlement conviction of a hotel manager was overturned. The trial court had admitted an exhibit containing a projection of the hotel's income based on prior earnings and compared that figure with the actual income earned during the defendant's management. The suggested inference presumably was that the failure to earn the projected income was a result of defendant's misconduct.

The evil struck down in these cases is the attempt to establish guilt by suggesting incriminating probabilities with a distorted statistical picture without showing the probative value of the figures. That is precisely what the government did in this case. Its numbers undoubtedly had an overpoweringly prejudicial effect on lay jurors. As one distinguished commentator on scientific evidence has stated:

> ". . . the very mystery that surrounds mathematical arguments—the relative obscurity that makes them at once impenetrable by the layman and impressive to him—creates a continuing risk that he will give such arguments a credence they may not deserve and a weight they cannot logically claim." Tribe, *Trial by Mathematics: Precision and Ritual in the Legal Process*, 84 Harv. L. Rev. 1329, 1334 (1971).

See also Finkelstein & Fairley, *A Bayesian Approach to Identification Evidence*, 83 Harv. L. Rev. 489 (1970).

The authoritative *Manual for Complex Litigation* (1973) also recognizes the prejudice that can result from the misuse of statistics or other mathematical evidence and takes the position that "the burden of proof rests upon the offerer to show that the sample was selected in accordance with accepted principles of sampling so that it properly represents the universe." *Manual*, 2.712(a). It further states: "No procedure should be adopted which in effect would place the burden of disproving admissibility on the opposing party." *Manual*, 2.713.

The trial court's conduct was at variance with these authorities. A failure to overturn the conviction would establish a precedent, suggesting that by using the mystique of computer-produced summary statistics without first establishing their accuracy, reliability, or probative value, prosecutors have a facile technique for overcoming the presumption of innocence. The confusion and prejudice created by the government's misleading use of the statistics far outweighed whatever minimal probative value they might have had. To insure that the process of determining guilt or innocence does not become hypnotized by questionable mathematical demonstrations, review by this Court is necessary to establish a standard for assuring the trustworthiness of this kind of evidence. Trial by statistics or mathematics is not any more in keeping with our constitutional safeguards than is trial by combat.

B. *Confrontation—the Right to a Realistic Opportunity to Challenge Computer-Based Statistical Summaries.*

A party against whom computerized information—particularly summary statistics—is to be used must be given an "opportunity to inquire into the accuracy of the computer and the input procedures used." *United States* v. *DeGeorgia*, 420 F. 2d 889, 893, n. 11 (9th Cir. 1969). See

also McCormick, *Evidence*, § 314, at 734 (2d ed. 1972). Thus, the *Manual for Complex Litigation* (1973) recommends that in civil cases "computer inputs and outputs, the underlying data and the program method employed should be made available to the opposing party in advance of trial as a condition of admissibility." *Manual*, 2.717.

The federal courts usually are extremely careful to make certain that parties are provided a full opportunity to meet summary evidence. Accordingly, a summary will not be admitted unless the underlying data is in evidence or available at trial, so that counsel has an opportunity to test the summary's correctness and to cross-examine the proponent's witnesses. The leading evidence treatise states that this is the rule of "most courts," 4 Wigmore, *Evidence*, § 1230, at 434-435 (3d ed. 1940), and it clearly is the rule in most federal courts. See, e.g., *United States* v. *Ellenbogen*, 365 F. 2d 982 (2d Cir. 1966), *cert. denied*, 386 U.S. 923 (1967); *Greenhill* v. *United States*, 298 F. 2d 405 (5th Cir.), *cert. denied*, 371 U.S. 830 (1962); *United States* v. *Kiamie*, 258 F. 2d 924 (2d Cir. 1958); *Hoyer* v. *United States*, 223 F. 2d 134 (8th Cir. 1955); *Yoffe* v. *United States*, 153 F. 2d 570 (1st Cir. 1946) (dictum); *Melinder* v. *United States*, 281 F. Supp. 451, 455 (W.D. Okl. 1968).

Even greater care is exercised with regard to summaries of records not under the accused's control. See, e.g., *Kramer* v. *Malco, Inc.*, 225 F. Supp. 344 (S.D. Ill. 1964). This certainly should have been true in the present case, which involves summaries of a record of a third person—Blue Shield—that is vitally interested in the outcome of the litigation.

The Sixth Circuit failed to pay any attention to these widely accepted procedural standards or to the cautions sounded by the cited authorities, thereby creating a conflict in principle with cases in the First, Second, Fifth, and Eighth Circuits. Although there are erroneous statements

to the contrary in the Court of Appeals' opinion, the defense did not learn of the Statistical Run or of the prosecution's proposed comparison prior to its offer of proof.[6] Therefore, the defense was prevented from hiring a computer expert, identifying Blue Shield personnel who could provide the details of that organization's computer activities, or studying the statistical summaries to counter the prejudicial inference suggested to the jury. In point of fact, *the underlying data from which the Statistical Run was produced never was introduced in evidence, present at trial, or made available to defense counsel* (A. 197, 200, 295).

Counsel never was able to demonstrate (1) that there may have been computational errors, (2) that there may have been numerous other doctors with profiles that also showed a disproportionate number of payments for certain procedures, indicating that the unfavorable inference of nonperformance was unwarranted, (3) that the doctors included in the statistics were not a proper sample of all Michigan doctors, and (4) that the practice engaged in by Dr. Russo was so atypical that few, if any, of the doctors in the summary statistics properly could be compared with him. Because of the lack of any effective opportunity to analyze the Statistical Run and the insufficient foundation laid for its introduction (see Point I(C)), the defense's right to cross-examine, which lies at the root of the Sixth Amendment right of confrontation, see generally *Pointer* v. *Texas*, 380 U.S. 400 (1965), *Greene* v. *McElroy*, 360 U.S.

[6] See Notes 2 and 5. There is no apparent reason for the Sixth Circuit's misapprehension, which was called to its attention in a rehearing petition but apparently ignored. The facts relating to the failure to give petitioner advance warning of the existence of the Statistical Run or any opportunity to rebut the statistical comparison also were pointed out during oral argument and were the subject of vigorous questioning by the court, particularly by the late Judge Kent.

474 (1959), was rendered meaningless. In addition, the government's failure to give petitioner an opportunity to study the underlying data and the trial judge's rejection of counsel's requests for access to it (A. 198-199), made a mockery of the presumption of innocence, the petitioner's right to present witnesses and evidence on his own behalf, and various due process considerations protected by the Fifth Amendment.

What occurred in this case should be contrasted with the fairer and more realistic procedures other circuits have employed in connection with statistical or scientific proof. For example, in *Greenhill* v. *United States*, 298 F. 2d 405 (5th Cir.), *cert. denied*, 371 U.S. 830 (1962), a mail fraud case involving the sale of securities, the government introduced, through an auditor, a compilation of checks written to defendants. The court noted that this type of summary is admissible "provided cross-examination be allowed and the original records are available." *Id.*, at 412. Accordingly, all the records were given to the defense's accounting witnesses and, when counsel objected because the original checks were not available, they were ordered presented, even though the original records of the checks in the books of entry had been provided.

In *United States* v. *Kelly*, 420 F. 2d 26 (2d Cir. 1969), the court reversed a criminal conviction because the prosecution used identification evidence based on neutron activation analysis but had not given the defendant notice of its intention to employ it or "a fair opportunity" to make similar tests or to secure counter expert opinion. See also *United States* v. *Stifel*, 433 F. 2d 431 (6th Cir. 1970), *cert. denied*, 401 U.S. 994 (1971) (dictum); Comment, *The Evidentiary Uses of Neutron Activation Analysis*, 59 Calif. L. Rev. 997 (1971).

The contrast between the approach to statistical and scientific proof taken by the Second and Fifth Circuits and

that followed in this case, demonstrates the need for this Court to formulate principles of procedural fairness in the use of statistical and scientific evidence. The task of striking a balance between effective utilization of the "new knowledge" and our legal system's commitment to protect the rights of a defendant is a matter of great contemporary significance. The present case, with its multifaceted improprieties regarding the use of computer-produced summaries and statistical proof, is an excellent vehicle for beginning that process.

There was yet another way in which petitioner's ability to defend was significantly compromised and justifies further review. The trial court cut off the defense's presentation of patients who testified that Dr. Russo had performed the medical procedures for which he had been paid on the ground that it had become cumulative. Since the government was allowed to introduce statistics to suggest an inference of nonperformance, Dr. Russo certainly should have been permitted to establish performance through his patients, even if the testimony of numerous witnesses was necessary. Under the circumstances, the evidence could not have been cumulative.

By enabling the prosecution to use computer-produced statistical summaries without affording petitioner a meaningful opportunity to prepare a rebuttal to them and by preventing petitioner from presenting witnesses, the court deprived Dr. Russo of his constitutional rights to confront the witnesses against him and to present witnesses on his behalf. In *Chambers* v. *Mississippi*, 410 U.S. 284 (1973), this Court said that the "denial or significant diminution [of the right to confront and to cross-examine] calls into question the ultimate 'integrity of the fact-finding process' and requires that the competing interest be closely examined." *Id.*, at 295. "Few rights are more fundamental

than that of an accused to present witnesses in his own defense." *Id.*, at 302. Only this Court can rectify the violation of these basic rights.

C. *Judicial Administration—the Necessity of a Proper Foundation for Computer-Produced Summary Statistics.*

Independent of the grounds for review discussed in points A and B above, petitioner's conviction must be reversed because an insufficient foundation was provided for the admission of the computerized summaries. The few existing authorities insist that the proponent demonstrate a solid foundation for the admission of computerized business records, one considerably firmer than for more traditional forms of records. The burden is not on the opposing party to show the weakness of the proffered evidence. For example, in *United States* v. *DeGeorgia*, 420 F. 2d 889, 893, n. 11 (9th Cir. 1969), the court stated in dictum (the defense never challenged the prosecution's foundation) that computer evidence is appropriate only if: "the trial court . . . requires the party offering the computer information to provide a foundation therefor sufficient to warrant a finding that such information is trustworthy." Judge Ely's concurring opinion offered several reasons for this conclusion.

> "In a day when the pace of our technology threatens to exceed the development of rules for governing human conduct, we must be careful to insure that fundamental rights are not surrendered to the calculations of machines. If a machine is to testify against an accused, the courts must, at the very least, be satisfied with all reasonable certainty that both the machine and those who supply its information have performed their functions with utmost accuracy. Therefore, it is essen-

> tial that the trial court be convinced of the trustworthiness of the particular records before admitting them into evidence. And it should be convinced by proof presented by the party seeking to introduce the evidence rather than receiving the evidence upon the basis of an inadequate foundation and placing the burden upon the objector to demonstrate its weakness." *Id.*, at 895-896.[7]

See also *King* v. *State ex rel. Murdock Acceptance Corp.*, 222 So. 2d 393, 397 (Miss. 1969); McCormick, *Evidence*, § 314 at 734 (2d ed. 1972).

Computerized records, especially computer-produced summaries, cannot be treated as are double entry ledger notations under the Business Records Act, 28 U.S.C. § 1732. Not only are computers subject to human error, but they are complex, fragile systems vulnerable to "weaknesses" that do not compromise traditional record systems. Thus, Freed, *Computer Print-Outs as Evidence*, 16 Am. Jur., *Proof of Facts*, 273, 339 (1965), argues that the following must be shown:

> "—Qualification of expert by education, training, and experience
>
> "—Familiarity of expert with use of computers
>
> "—Nature of input information used as basis for machine calculations
>
> "—Mechanics of input control to insure accuracy
>
> "—Checks to insure accuracy of computer during operations
>
> "—Comparison of probability of computer error

[7] A good discussion of the risks inherent in computer-based evidence and the need for a solid foundation to be laid for its admission is found in *Manual for Complex Litigation*, 2.716, 2.717 (1973).

with probability of human error in keeping traditional records

"—Precautions to prevent digit spill out

"—Size of computer as affecting its accuracy

"—Control of print-outs to prevent error

"—Expert opinion as to accuracy of machine computations."

See also Brown, *Electronic Brains and the Legal Mind: Computing the Data Computer's Collision with Law*, 71 Yale L.J. 239, 249 (1961); Comment, *Evidence—Admissibility of Computer Business Records as an Exception to the Hearsay Rule*, 48 N.C. L. Rev. 687, 694 (1970); Annot., *Proof of Business Records Kept or Stored on Electronic Computing Equipment*, 11 A.L.R. 3d 1377 (1967).

By no stretch of the imagination did the government's presentation of two Blue Shield employees meet the standard suggested by the courts and the commentators. The first, Mr. Smith, freely admitted: "I'm not a computer expert . . . ." (A. 154.) The record makes it clear that his department is responsible only for verifying the DSR's (A. 79) and that he had absolutely no connection with the preparation of the summaries in the 1967 Statistical Run. Mr. Smith was ignorant of the computer's operation and possible alteration of the statistics after the Run was completed, although he admitted that numerous people could have made changes in it (A. 300-301); he did not "have the slightest idea" (A. 302) what many parts of the print-out meant (A. 302-308); he was uncertain about the continued existence of the raw data from which the computer tapes were produced (A. 309-313); and he admitted he had nothing to do with the claims processing cycle—the very stage at which computerization takes place (A. 78-79).

The second witness, Mr. Mrachina, admitted that he never has been a keypuncher and knew nothing about com-

puter electronics or system repair (A. 209) or the maintenance record of the Blue Shield equipment (A. 213). He admitted a lack of familiarity with the record management department (A. 215) and therefore could not testify as to how the DSR's were processed (A. 216). He knew nothing about the turnover of personnel in the keypunching department (A. 216) and did not testify as to the quality of the keypunchers, technicians, or programmers employed by Blue Shield. He also made an admission making it clear that, like Mr. Smith, he was not qualified to lay a foundation for the 1967 Statistical Run—he had nothing to do with its preparation! (A. 217)[8]

To appraise the deficiencies of the government's "foundation," it is important to realize that the raw data passed through numerous stages before its incorporation in the 1967 Statistical Run. The data on the DSR's is first converted into a machine readable format—punch cards or magnetic tapes. The machine readable version is then processed by computer programs called the "daily system," which apparently checks the information in various ways. The data is then manipulated by "check writing programs," which produce payment checks with attached vouchers. What has been paid out is recorded on the "paid claims file." The Statistical Run is generated from the paid claims file at a later date.

The accuracy of the Run depends upon the integrity of the paid claims file—a subject on which there was no testimony. For example, the record is silent on what the sources for the paid claims file are and when it is prepared. The record also is silent as to what, if anything, was done in 1967 to balance the source material against the paid claims

[8] The Court of Appeals' opinion ignores the fact that Smith and Mrachina had nothing to do with the preparation of the 1967 Statistical Run. The only other Blue Shield employees who testified worked on the individual doctor profiles, *not* the Statistical Run (A. 248-292).

file and to eliminate the possibility of errors being carried forward from the daily system or check writing process. The government's presentation ignored a variety of crucial factors—the quality of the Blue Shield equipment, its age, its maintenance, its "down" time, its vulnerability to breaches of security and data distortion, the competence of the keypunch operators or the programmers who prepared the software, as well as other variables that bear on whether this extraordinarily sophisticated mass of electronics is functioning reliably.

Unfortunately, the courts below failed to appreciate the superficiality of the government's presentation, perhaps because of the trial judge's confusion regarding the difference between the manually prepared doctor profiles and the computer-produced Statistical Run, as well as between original records and statistical summaries (see, e.g., A. 240, 293, 297, 315, 317). In addition, contrary to all the authorities, the trial judge apparently believed that the burden was on petitioner to show that the proffered evidence was not trustworthy (A. 198-199).

The lower court's ruling is especially inappropriate because the 1967 Statistical Run *was the first one ever produced by Blue Shield* (A. 213). The fact that Blue Shield relies on the runs now being prepared for certain purposes does not indicate that the original Run was trustworthy. Moreover, the testimony of Smith and Mrachina as to the present capabilities of Blue Shield's computer was totally irrelevant to whether the much more primitive 1967 system was reliable. Their testimony gave the original Run an unjustified image of integrity.

The lack of a solid foundation in this case stands in sharp contrast to the foundation insisted upon in other cases involving computerized records. See, e.g., *Transport Indemnity Co.* v. *Seib*, 168 Neb. 233, 132 N.W. 2d 871, 11 A.L.R. 3d 1368 (1965); *King* v. *State ex rel. Murdock Acceptance*

Corp., 222 So. 2d 393 (Miss. 1969). Accordingly, the introduction of the computer-produced summary statistics was error, particularly since its use at trial prejudiced petitioner. Further review by this Court is necessary to resolve the conflict in principle between language in the Ninth Circuit's opinion in *DeGeorgia* and the Sixth Circuit's approach below. Moreover, given the increasing reliance on computer-based and computer-produced evidence in contemporary litigation, it is imperative for this Court to formulate standards for properly utilizing these new informational resources to insure that "fundamental rights are not surrendered to the calculations of machines." 420 F. 2d, at 895.

II. Administration of Criminal Justice—Correctness of Prejudicial Misjoinder.

As the court below notes, joinder under Federal Rule of Criminal Procedure 8(b) is not limited to situations in which a conspiracy is charged. The rule's "same series of . . . transactions" standard also can be met by charging that each defendant's activities were part of a common plan.[9] Every count in this case admittedly contained such an

[9] It has been suggested that joinder also is permitted when the several offenses charged "were so closely connected in respect to time, place and occasion that it would be difficult to separate proof of one charge from proof of the others." See American Bar Association, *Standards Relating to Joinder and Severance*, Rule 1.2(c)(ii). Neither the Court of Appeals nor the government has relied on this ground. Nor is there any basis for doing so. The prosecution used separate witnesses to prove the alleged failure of each defendant to render the services for which he billed. The only elements of "joint" proof were the testimony of one expert witness and the introduction of the Statistical Run. A comparison of the time devoted to "joint" as opposed to "individual" proof demonstrates that the "inseparable proof" test could not be met in this case.

allegation. But the initial validity of joinder does not necessarily determine its ultimate propriety. If the indictment's allegations were controlling, the prosecution could achieve joinder of parties—which is recognized as inherently involving some prejudice, *Cupo* v. *United States*, 359 F. 2d 990, 993 (D.C. Cir. 1966), *cert. denied*, 385 U.S. 1013 (1967) —by simply including a charge of conspiracy or common plan that it could never establish. Accordingly, this Court has noted that when joinder is based on a conspiracy charge, the trial court should examine the consequences of the joinder carefully and direct a new trial when it appears to have been prejudicial. It also has made clear that "a trial judge should be particularly sensitive to the possibility of such prejudice." *Schaffer* v. *United States*, 362 U.S. 511, 516 (1960). See also *Kotteakos* v. *United States*, 328 U.S. 750 (1946).

The Sixth Circuit ignored the trial court's failure to discharge its responsibility and simply stated that the jury's finding of guilt on each count necessarily "involved a finding that the fraudulent scheme existed as well as that the particular acts recited in paragraph II . . . occurred." (App. A. 13a) There is no basis for this conclusion. The crime alleged in each count was based only on the use of the mails by one of the doctors with respect to a particular payment from Blue Shield. The jury never was directed that a finding of a common scheme was essential to a finding of guilt under any count. Thus, even if the jurors found that there had been no common scheme, they still would have returned a guilty verdict on a particular count if they concluded that the individual defendant had committed the offense specified in paragraph II of that count. Because of the way the indictment was drafted, no single count primarily rests on the existence of a common scheme, as would be true if there had been a conspiracy count or a count charging both defendants with a specific offense on

the basis of accomplice liability. Compare *United States* v. *Scott*, 413 F. 2d 932 (7th Cir. 1969), *cert. denied*, 396 U.S. 1006 (1970), and *Cacy* v. *United States*, 298 F. 2d 227 (9th Cir. 1961), the cases relied upon by the Court of Appeals. Accordingly, there is no means of directly testing the sufficiency of the evidence supporting the allegation of a scheme, which provides the only basis for the joinder. The responsibility of the trial court in this situation is a matter of great significance, similar in many respects to the issue presented in *Schaffer*. The courts below abdicated their obligation to be "sensitive" to the possibility of prejudice and this Court should enforce it.[10]

This issue cannot be evaded on the theory that there was sufficient evidence to support an allegation of a joint scheme, had that allegation been directly presented to the

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[10] The trial court's responsibility cannot be evaded because defendant did not make an "unqualified" motion to sever (see Note 4), which led the Sixth Circuit, relying on cases in the Second Circuit and District of Columbia Circuit, to conclude that the misjoinder issue could not be raised on appeal (App. A. 15a). The court below ignored petitioner's consistent objection to the introduction of evidence that related to his codefendant.

The Sixth Circuit's ruling with respect to the lack of an "unqualified motion for severance" also ignored the Seventh Circuit's holding in *United States* v. *Gougis*, 374 F. 2d 758 (7th Cir. 1967), that the failure to move for severance does not result in waiver of a misjoinder objection. That court concluded that Rule 14 creates a continuing duty on the court to avoid prejudice from joinder, citing *Schaffer*. Also overlooked was an earlier Sixth Circuit case noting, in dictum, that even though Rule 14 refers to the "grant" of severance, connoting a request or motion, the court did "not support what was done on the basis of procedural nicety or by faulting . . . [defendant's] trial counsel for failure to ask for a severance." *United States* v. *Vida*, 370 F. 2d 759, 765 (6th Cir. 1966), *cert. denied*, 387 U.S. 910 (1967). See also *Gajewski* v. *United States*, 321 F. 2d 261 (8th Cir. 1963). In light of the serious prejudice that may be inflicted on an accused because of misjoinder, the Court should take this opportunity to reject automatic waiver and eliminate the apparent conflict between the circuits.

jury (App. A. 16a). In *United States* v. *Granello*, 365 F. 2d 990, 994 (2d Cir. 1966), Judge Friendly indicated that to satisfy Rule 8(b) the joint participation in the "series of acts or transactions" must constitute "an offense." That certainly is not true in this case. The prosecution failed to establish any nexus between each defendant's separate acts. The evidence showed that they worked independently and no joint offense or common scheme ever was proved. Only circumstantial evidence was introduced. That evidence hardly would be sufficient to give the jury a joint charge based on accomplice liability or a conspiracy charge.

Finally, the joinder in this case, unlike that in *Schaffer*, clearly resulted in serious prejudice. A wide range of evidence was introduced during the eight-week trial, much of which did not relate to petitioner but dealt with his co-defendant's alleged misconduct. Undoubtedly, the evidence of the similar but unrelated acts of Dr. Lieberwitz created an aura of guilt in the jurors' minds. In addition, because defendants were tried on a joint scheme theory, evidence was admitted under the standard applicable to conspiracy cases that would not have been permitted if Dr. Russo had been tried alone and proper objections raised. Thus, for example, very prejudicial testimony relating to Dr. Russo's alleged issuance of improper work excuses was introduced, which suggested that petitioner had the propensity to commit fraudulent acts and therefore may have led the jury to find him guilty of the totally different acts charged in the indictment.

This case is of general importance because of the ramifications of misjoinder in criminal cases. The proper application of the Criminal Rules depends upon their not being used as tactical weapons to disadvantage the accused. Petitioner therefore urges this Court to grant review to formulate criteria with regard to joinder and severance.

III. Sixth Amendment—the Right to a Speedy Trial.

Although the opinion in *Barker* v. *Wingo*, 407 U.S. 514 (1972), describes four factors relevant to determining whether the speedy trial guarantee has been denied, in order to make certain the right is given effect, further guidance is needed from this Court as to the standards for analyzing and weighing them. In this case, for example, the Sixth Circuit's opinion does not even respond to petitioner's claim that he was denied his Sixth Amendment rights. Thus, it offers the Court an opportunity to emphasize the importance of speedy trial and to establish a more concrete framework for the lower courts.

The first factor mentioned in *Barker* is the delay's length. In this case 688 days elapsed between indictment and trial. It would be patently absurd to suggest that a delay of this magnitude is consistent with the speedy trial guarantee. In and of itself, it should have "triggered" a careful judicial examination of the *Barker* factors. *United States* v. *Dyson*, 469 F. 2d 735 (5th Cir. 1972) (22 months); *Arrant* v. *Wainwright*, 468 F. 2d 677 (5th Cir. 1972) (24 months). See also *United States* v. *Cary*, 470 F. 2d 469 (D.C. Cir. 1972) (13 months); *United States ex rel. Stukes* v. *Shovlin*, 464 F. 2d 1211 (3d Cir. 1972) (14 months).

The second factor is the reason for the delay. Certainly petitioner did not cause it. The prosecution's only excuse was the bald assertion that the case involved a complex scheme to defraud so that twenty-three months was "not inordinate." The government did not substantiate this claim, except to note that the trial lasted eight weeks and involved numerous witnesses and exhibits. But the prosecution only introduced twenty-one witnesses—fewer than the number of months petitioner waited. Moreover, it is difficult to take seriously the government's unsupported claim that it was busily engaged in preparing for twenty-three months

since many of its witnesses appeared before the grand jury and this case really does not present any complicated fact issues.

The Court of Appeals' failure to address the speedy trial issue and to insist on an explicit explanation of what caused the delay represents a subversion of a constitutional right that should not be tolerated. Contrary to the *Barker* philosophy, it effectively shifts the burden to the accused to show that the delay is unjustifiable and it evades the court's obligation to analyze the reasons for the delay.

The third *Barker* factor is whether petitioner asserted his right to a speedy trial. Since a demand is only one of several elements, the fact that the issue was first raised on appeal did not constitute a waiver. *United States* v. *Dyson,* 469 F. 2d 735 (5th Cir. 1972). Indeed, the burden is on the prosecution to prove that "the claimed waiver was knowingly and voluntarily made." *Barker* v. *Wingo,* 407 U.S. 514, 529 (1972). See also *Johnson* v. *Zerbst,* 304 U.S. 458 (1938); Note, *The Lagging Right to a Speedy Trial,* 51 Va. L. Rev. 1587, 1610 (1965). Because it is the prosecution's duty to provide for a prompt trial, *Barker* v. *Wingo, supra; Dickey* v. *Florida,* 398 U.S. 30 (1970), any emphasis on a demand "is inconsistent with the traditional requirement that waiver be knowing and voluntary, and with the notion that a defendant has no duty to bring himself to trial." Supreme Court Note, 86 Harv. L. Rev. 164, 169 (1972).

It is against a defendant's natural instinct to place himself in jeopardy sooner than is necessary by seeking to advance his trial. *Dickey* v. *Florida, supra.* Thus, petitioner's failure to do so is not the type of intelligent waiver that should be insisted upon before his constitutionally based right is deemed forfeited.

The fourth factor is whether the accused has been prejudiced. It cannot be doubted, of course, that severe emotional stress is placed on a defendant who must wait

for trial to begin, *United States* v. *Dyson*, 469 F. 2d 735 (5th Cir. 1972), even if he is not incarcerated, *Strunk* v. *United States*, U.S. , 93 S. Ct. 2260 (1973); *Barker* v. *Wingo, supra; Klopfer* v. *North Carolina*, 386 U.S. 213, 221 (1967). During the twenty-three month delay, this petitioner suffered humiliation, public obliquy, lost the right to practice in the osteopathic hospitals in his community, and was under the constant threat that he would lose his license to practice if convicted.

The delay also substantially prejudiced petitioner's defense by dimming his patients' memories. The medical treatments in issue took place between three and five years prior to trial. They were minor procedures involving routine injections that were not memorable, as would be witnessing a robbery or homicide. The passage of time dulled the witnesses' recollection of the details or caused them to confuse treatments received on different dates.

Illustratively, the prosecution introduced one patient who testified that he had received only one shot in possibly eight or nine visits. This statement conflicted with the patient's testimony during the grand jury investigation almost two years earlier that he received a shot *every time* he went to the clinic! (Tr. 864-871.)

The decision below clearly deviates from the constitutional requirement of a speedy trial and conflicts in principle with this Court's ruling in *Barker* and decisions in other circuits. Unless further review is granted, this Court's efforts to breathe life into the speedy trial guarantee will be undermined by the simple expedient of the lower court not undertaking the inquiry required by *Barker*.

Conclusion

For the reasons stated, this writ should be granted and the judgment of the Court of Appeals for the Sixth Circuit reversed.

Respectfully submitted,

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Dated: October 4, 1973.

Appendix A.

No. 72-1846

UNITED STATES COURT OF APPEALS

FOR THE SIXTH CIRCUIT

UNITED STATES OF AMERICA, *Plaintiff-Appellee,* v. JOSEPH RUSSO, *Defendant-Appellant.*	APPEAL from the United States District Court for the Eastern District of Michigan.

Decided and Filed July 6, 1973.

Before: PHILLIPS, Chief Judge; KENT* and LIVELY, Circuit Judges.

LIVELY, Circuit Judge. Appellant, Joseph Russo, is an osteopathic physician licensed to practice in Michigan. He and an associate were charged in a single indictment containing 51 counts of violating the mail fraud statute, 18 U.S.C. § 1341. Count one of the indictment was divided into paragraphs I and II. Paragraph I charged that the two physicians "devised and intented to devise a scheme and artifice to defraud Blue Shield of Michigan, ... by filing claims for services not performed on patients on dates specified and for obtaining money from such organization by false and fraudulent pretenses and representations, well knowing at the time that the pretenses and representations would be and were false when made." Subparagraphs A through G set forth in detail the manner in which the alleged scheme and artifice to de-

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* Judge Kent participated in the hearing of this case but died on May 28, 1973 and did not participate in the decision.

fraud was carried out. Paragraph II of Count one then recited that on July 14, 1966 at Detroit in the Eastern District of Michigan the defendant, Joseph Russo, did knowlingly and willfully cause Blue Shield of Michigan to mail a check, identified by number, to him in violation of the mail fraud statute. Each of the susequent 50 counts realleged and adopted the allegations of paragraph I of Count one and in its paragraph II charged one or the other of the named defendants with willfully causing a check to be placed in the mail by Blue Shield of Michigan for delivery to that defendant. No conspiracy was charged in the indictment.

The evidence reveals that during the period covered by the indictment which was part of the year 1966, all of 1967 and part of 1968 Dr. Russo leased a group of offices in the basement of a building in a "blue-collar" neighborhood in Detroit. These offices, referred to in the testimony as Dr. Russo's clinic, consisted of four examination rooms, an office and a long hallway where patients waited. Although Dr. Russo was associated with several other doctors in a partnership known as The Midwest Clinical Group, only one of the other members of that partnership practiced in the same building with Dr. Russo and there was no sharing of facilities or personnel by them. The Midwest Clinical Group was a loose sort of arrangement in which each of the partners contributed income for the purpose of maintaining one or more osteopathic hospitals in Detroit. It appears from the testimony that the doctors who belonged to the Midwest Clinical Group had problems obtaining hospital beds for their patients and that it was necessary for them to operate, through the partnership, hospitals known as Palmer East and Palmer West for the treatment of their patients. Although the testimony indicates that the Midwest Clinical Group received a portion of its funds from Dr. Russo, presumably including payments from Blue Shield of Michigan which the indictment charges were procured by fraud, there is no evidence that any other member of the Midwest Clinical group was involved in, or had any knowledge

of, the scheme charged in the indictment. The co-defendant, Dr. Lieberwitz, was not a member of the Midwest Clinical Group, but was an employee of Dr. Russo.

The Russo office or clinic was kept open throughout the day until late at night and hundreds of potients were seen in a single day. Most of the time Dr. Russo had at least two other doctors working for him in the clinic and each worked on certain days during the week. The other doctors who worked for Dr. Russo gave him a portion of their gross receipts and paid none of the overhead expenses of the offices. The co-defendant who was indicted and tried with Dr. Russo was a younger osteopathic physician who testified to treating an average of 150 patients per day while working at Dr. Russo's office and who stated that he often stayed until 1:00 or 2:00 o'clock in the morning since the office was never closed as long as there were any patients waiting to be seen. Several of the doctors who had worked at the clinic testified that it was Dr. Russo's office and that when they came to work, all of the patients were Dr. Russo's patients, although after they had been there a while some of the patients became theirs. Several witnesses attributed the large number of daily patients at the Russo clinic to the fact that it was located in a densely populated section of Detroit where few doctors' offices were situated.

It was testified that Blue Shield of Michigan furnishes to the doctors who practice in that state printed forms known as "Doctor Service Reports" (hereafter DSR). In order to be paid by Blue Shield it is necessary for a doctor to complete a DSR for each treatment and submit it for payment. Each doctor is assigned a provider's code number and this and his name are both imprinted on the DSR's furnished to him by Blue Shield. The DSR is completed by filling in the name of the patient, the name of the subscriber, which might be different from that of the patient, and the address, identification number and certain other statistical data of the subscriber. Often the subscriber is the employer of the patient. In addition, the

treating physician must indicate the date of the service and a description of the service rendered together with a diagnosis. Each physician is supplied with a manual containing approximately 8,000 different procedures with a four-digit code number for each such procedure. There is an established fee which Blue Shield agrees to pay for each particular type of medical service under its various contracts, and the amount of its liability is determined by the procedure code number and description of services performed as indicated on the DSR. Not all medical services are covered by Blue Shield and the coverage can vary between contracts of various subscribers.

The prosecution did not contend that the appellant submitted DSR's to Blue Shield for patients that he had not seen on the dates indicated. What was contended was that in many cases the treatment received by the patients was of such a nature that it was not covered by Blue Shield and was not compensable under the particular subscriber contract involved and that if the services actually performed had been disclosed on the DSR, no payment would have been due from Blue Shield. Instead of making a charge to the patient for the actual services which were not compensable under the patient's Blue Shield coverage, it was the contention of the prosecution that the defendants caused a DSR to be prepared showing that some procedure had been followed with the patient which would have been compensable.

The prosecution produced 12 former patients of Dr. Russo and Dr. Lieberwitz who testified concerning their visits to the clinic and the treatment which they received. Some of the testimony related to acts referred to in particular counts of the indictment and some related to similar acts not charged in the indictment. Each of these patients was asked to identify a number of DSR's submitted by Dr. Russo or his co-defendant upon which payment had been received. Each of the witnesses identified his or her signature on the DSR and was then asked about the treatment or services received at the clinic. In each case the treating doctor had reported

administering a treatment involving either aspiration of a hematoma or bursa, or arthrocentesis. The aspiration of the bursa was usually described in the DSR's as being applied to one of the shoulders or one of the hips. This procedure involves withdrawal of a fluid from the bursa or hematoma by means of either one or two needles. Arthrocentesis, which is the injection of a steroid or other substance into a joint, was described in the reports as being applied variously to either shoulder, as well as both hips and ankles.

These twelve witnesses testified that they went to the clinic because of colds, bronchitis, low blood pressure, weight loss, a broken finger, backache, hurting in the right side, asthma, kidney infection, and arthritis. Without exception, they testified that the only injections they received from Drs. Russo and Lieberwitz were cold shots and ordinary inoculations in the fleshy part of the hip and arm and that they never received any injections into the shoulder or hip joints. A number of the witnesses testified that they were asked by the doctor before receiving the first treatment whether they were allergic to penicillin. Likewise those patients who actually observed the treatment stated that no fluid of any kind was withdrawn by the doctors. Each of them who was asked estimated that his treatment took a very brief time and except for one witness who had arthritis, the testimony was that none had complaints concerning limbs or joints. Floyd Newkirk, the witness who had arthritis, stated that he received no shots in his shoulder and that no fluid was ever withdrawn during any of his treatment. These witnesses agreed on cross-examination that they felt better after being treated at Dr. Russo's clinic. Ordinary injections of medicines made in a doctor's office are not compensable by Blue Shield. However, both arthrocentesis and aspiration of the bursa and hematoma are considered to be surgical procedures and are covered. The defense produced 101 patient witnesses who described the treatment they received at Dr. Russo's clinic and in many cases they were victims of arthritis and bursitis who were treated by aspiration and

arthrocentesis. On cross-examination, a number of these witnesses stated that burtisis and arthritis are very painful and that a person knows it if he has one of these ailments.

In addition to patient witnesses the prosecution produced the Director of Service Review of Blue Shield of Michigan, Charles Smith. Mr. Smith testified that the prime objective of his department is to insure the integrity of the reporting forms (DSR's) submitted to Blue Shield by doctor-providers of care. He stated that this is done by various audits and investigative procedures initiated by his department. He considered the DSR to be the basic document in the claims procedure of Blue Shield. It was described as a perforated carbon form which permits the doctor to retain a copy while submitting the original to Blue Shield for payment. This witness went through the internal billing procedures at Michigan Blue Shield in great detail. It was pointed out that each DSR is examined by several different people to determine that it is complete and proper for payment. If a claims examiner determines that it is in all respects complete and correct the appropriate amount of money for the particular service is recorded and the examiner initials and dates the DSR. From that point the form is taken to the data recording section where the information from it is recorded onto a magnetic tape for further processing.

After this information has been stored on magnetic tape the claim form itself is microfilmed and there is a cross reference made between the information on the magnetic tape to be used by the computer and the microfilm copy of the original document. The original DSR is then destroyed. Each two weeks checks are written by the computer based on the information contained on the magnetic tapes. The computer retrieves all of the payments due each doctor under his provider code number and a check is printed out with a voucher attached which indicates part of the same information which had originally appeared on the DSR. Included are an identification of the patient, the date of treatment and the procedure code number. Each check can include payment for a maximum

of 17 claims, each representing a separate DSR filed by that particular doctor-provider. Mr. Smith testified that the checks are distributed to the doctors through the United States mail and that neither Dr. Russo nor the co-defendant had ever received a check in any other manner. The witness described a number of cross-checks and verification procedures followed by Blue Shield of Michigan to insure accuracy. While admitting that a computer output is no better than the information fed into it, he pointed out that two different key punch operators work from each DSR and that the work of each is compared with the other before information is finally put into the computer. This witness stated that since all claims payments are based on the correct processing of DSR's it is essential that reliable procedures be followed.

In addition to describing the general procedures of his employer with respect to processing the payment of claims, this witness offered to testify about particular statistics which had been gathered by Blue Shield concerning Dr. Russo and Dr. Lieberwitz and relating certain of their claims during the period in question to the total claims for the same procedures received by Blue Shield of Michigan during that period of time. In order to qualify this testimony, Francis Mrachina, the vice president of Michigan Blue Shield in charge of all computer functions, testified. He described the computer equipment used by his employer and its particular functions in the claims processing procedures. Among other things he described the verification which takes place of the input from the DSR to the computer and the daily balancing procedures followed by Michigan Blue Shield. He stated that new programs are pretested before adoption for use in the computers of Michigan Blue Shield. This witness then described an annual statistical survey which the company has produced by computer each year since 1967. This is a computer printout which shows the number of claims paid for each of the compensable procedures covered by Blue Shield contracts in Michigan. The witness stated that the annual statistical run

is made in the ordinary course of business by Michigan Blue Shield and that it is the basis of a number of decisions which the organization makes in the conduct of its business.

The witness Smith was then recalled and further described the annual statistical report. He pointed out that while there is a difference in charges by participating and non-participating doctors, virtually all of the 10,000 physicians practicing in Michigan in 1967 filed some claims with Blue Shield. The annual statistical report classifies claims paid by medical procedure and not by identifying the doctor who made the claim. The report contains a great deal of other information of a demographic nature which is used by Blue Shield for various accounting and actuarial purposes.

The witness then stated that another group of records relating to individual doctors is made each year by Michigan Blue Shield. These are called doctors' profiles and they are made up by clerical employees under the supervision of Mr. Smith. The profile is a method by which the organization determines what particular procedures have been reported by an individual physician, and paid for, during a given period of time. Each profile relates to only one doctor and lists each procedure for which he was paid during the period of the report and the number of claims paid for each procedure. Mr. Smith testified that in any year his organization would prepare approximately 1,200 individual doctor's profiles. Some of these have been constructed by computer operation and some by hand or manual tabulation. He stated that for the year 1967 manually generated profiles were made for Dr. Russo and Dr. Lieberwitz and he described the verification procedures involved to insure accuracy of the profiles. Two of the clerical employees who had constructed the 1967 profiles on the defendants then described in detail the procedures which they had followed. It was testified that a number of reasons might exist for the selection of a particular doctor for a profile in a given year, including the filing of an unusual number of claims, an exceptionally high income, or complaints from patients

or other doctors. It was stated that doctor's profiles are done in the ordinary course of business and are routinely used as part of the auditing procedure of Michigan Blue Shield. The employees who actually constructed the Russo profile described the procedures of verification which they followed in doing this job. It was testified that it took two employees approximately one month to construct the 1967 profiles of Drs. Russo and Lieberwitz. This was done early in the year 1968.

The basic document from which the profiles were made was the check voucher. The testimony was that each check voucher issued to the doctor being profiled during the period was examined and that a tabulation was made of each procedure for which payment was made in that particular check. Each doctor profile was complete and covered all procedures identified by code numbers, for which he was paid during the year and no particular procedure was pinpointed for inclusion in the profile. After every procedure for which payment had been made during the period of time had been tabulated from each check voucher issued during the period covered by the profile, the total for each procedure was obtained by use of adding machines. Two tapes were run on each item for verification.

The prosecution then sought to introduce the annual statistical report of Michigan Blue Shield for the year 1967 and the doctor profiles for the year 1967 of Dr. Russo and the co-defendant. Both defendants objected and further hearings were held out of the presence of the jury, consisting of legal arguments and further voir dire examination of the witness Smith. It was brought out that the paid claims tape file is the basic computer record for the annual statistical run. The court ruled that the prosecution had sustained its burden of showing that the information supplied by the computer is trustworthy. Counsel for the defendants at this point stated that the objection was to the tabulations or summary of evidence, stating that sufficient ground work had not been laid to permit the introduction of summaries rather than original

records. The prosecuting attorney then stated that the vouchers from which the tabulations for the doctors' profiles had been made were then in court along with the doctors' profiles and the annual statistical run for the year 1967 and that they had been available for checking by counsel for the defendants.

The witness Smith was then permitted to testify from the doctors' profiles, stating the number of payments which each defendant received in the year 1967 for each of five separate procedures. This was all admitted over the objection of both defendants. The prosecution then sought to show the total number of claims paid by Blue Shield in 1967 to all the doctors in Michigan, including the defendants, for each of these five procedures. Both defendants objected on numerous grounds, including the claim that no proof of the number of doctors involved in the survey had been made, that the annual statistical run included many doctors who would never have performed the particular procedures involved in the prosecution because of specialties outside of the area of treatment and the fact that the annual statistical record is a summary based on primary records which were never made available to the defendants.

Out of the presence of the jury the witness Smith again explained how the paid claims tape file is constructed and stored and how information from it is retrieved by the computer. He testified that the paid claims tape file is the best and most accurate record for accounting purposes maintained by the Michigan Blue Shield and that the annual statistical report is based entirely on the paid claims file. He again described how the annual statistical report is balanced to insure its accuracy, and the reliance which the company places on it. The witness stated that the sources of the information contained in the annual statistical report were still available in the form of magnetic tapes and that these tapes are computerized reflections of the original entries in the form of check vouchers. Copies of the check vouchers are maintained

along with microfilm copies of the DSR's filed by the various doctors in Michigan. These are the original documents which generate the payments by check with vouchers attached which make up the paid claims file. The annual statistical record for the year 1967 was produced on November 7 and 8, 1968. Following this testimony, the court admitted the 1967 annual statistical record as an original and primary record made and kept in the regular and every day course of business and relied upon by Blue Shield of Michigan. The court ruled that all the objections of the defendants to the annual statistical record went to the weight of this evidence and not to its admissibility.

The jury then returned and the witness Smith introduced the annual statistical run for the year 1967 as an exhibit and described it to the jury. Testifying from this record, Mr. Smith stated the total number of claims paid in the year 1967 by Michigan Blue Shield to all doctors submitting claims for the five medical procedures previously indentified as being involved in this prosecution and stated that these totals included claims of the two defendants. This evidence, together with that contained in the 1967 profiles previously introduced, may be tabulated as follows:

Procedure Code Number & Description	Dr. Russo	Dr. Lieberwitz	All Doctors
1046—Initial Arthrocentesis	2,048	817	23,897
1047—Subsequent Arthrocentesis	553	1,749	10,693
1413—Initial Aspiration of Bursa	3,528	613	14,357
1418—Subsequent Aspiration of Bursa	10,079	4,062	17,747
0145—Aspiration of Hematoma	150	613	1,568

Lengthy cross-examination of Smith failed to produce any evidence which reflected on the trustworthiness of the information contained in the annual statistical report.

Other witnesses called by the prosecution were an employee and a former employee of Dr. Russo who described office procedures in handling the DSR's and subsequent steps taken in processing them for submission to Michigan Blue Shield for payment. One employee testified that she had ink stamps made for a number of the procedures including arthro-

centesis and aspiration of bursa which came up quite often, as this saved time that would have been required to write out the descriptions of these procedures. She testified that the DSR's were brought to her home by Dr. Russo in batches of approximately 1,000. Another witness for the prosecution was Dr. Richard Thompson, an osteopathic physician who was also team physician for the Detroit Lions. He stated that he conducted a full office and hospital practice in addition to his work with the professional football team and some 20 high schools in the Detroit area. This witness described the medical procedures involved in arthrocentesis, aspiration of bursa, aspiration of hematoma and the preparation required for each of these procedures. He stated that in aspiration of a bursa or hemotoma the purpose is to extract fluid and that often two needles are used, one to inject an anesthetic and another larger bored needle to withdraw the fluid. He described the time involved in preparing a patient for these procedures and the various locations where penetration is usually made. He testified that normally an injection of penicillin takes place farther down the arm than an arthrocentesis or aspiration of a shoulder. He said that arthrocentesis involves an actual puncturing of a joint with a needle and this requires insertion directly into the joint. He also testified that he knew of no causal relationship between the common cold and a condition requiring arthrocentesis or an aspiration. It was his testimony that it would be impossible to perform an arthrocentesis of a shoulder joint by inserting a needle in the fleshy or muscular part of the arm. Dr. Thompson testified that in an active practice he and his associate did not have occasion to perform more than 1,000 procedures involving arthrocentesis and aspiration of bursa and hematoma within a period of one year.

Both defendants testified and denied that they had ever discussed the matter of billing Blue Shield for compensable procedures when non-compensable services were performed or that either had ever done this. They stated that every

DSR submitted by them correctly reflected the services they had performed. Eight counts of the indictment were dismissed on motion of the prosecution, without objection. The jury found Dr. Russo guilty on all counts in which he was named as the party causing the mailing.

Numerous assignments of error have been made. We will consider several of them separately.

I. Misjoinder

Appellant contends that there was a misjoinder of defendants under Rule 8(b).[1] It is claimed that the misjoinder was prejudicial, and that even if prejudice is not shown, he is entitled to a reversal. On its face the indictment clearly follows the language of the rule. The two defendants were "alleged to have participated . . . in the same series of acts or transactions constituting . . . offenses." They were charged together in paragraph I of each count and separately in paragraph II of each.

The fact that no conspiracy was charged does not indicate that there was a misjoinder. *United States* v. *Scott*, 413 F.2d 932 (7th Cir. 1969), *cert. denied*, 396 U.S. 1006 (1970). The appellant argues that the jury's finding of each defendant guilty on separate counts coupled with its finding of no joint guilt on any count is proof of misjoinder. As was held in *Cacy* v. *United States*, 298 F.2d 227 (9th Cir. 1961), the jury verdict should not be so narrowly construed. Because of the way in which the indictment was presented, a finding of guilt under any count necessarily involved a finding that the fraudulent scheme existed as well as that the particular acts recited in paragraph II thereof occurred.

[1] Rule 8(b) Fed. R. Crim. P. provides:

(b) Joinder of Defendants. Two or more defendants may be charged in the same indictment or information if they are alleged to have participated in the same act or transaction or in the same series of acts or transactions constituting an offense or offenses. Such defendants may be charged in one or more counts together or separately and all of the defendants need not be charged in each count.

Paragraph I of each count of the indictment clearly charges that the defendants devised *a* scheme to defraud Blue Shield of Michigan. It does not charge that each devised a separate scheme, but that the two of them devised a single scheme. A series of acts, some involving one defendant and some, the other, is then charged in furtherance of the single scheme or artifice. In cases cited by appellant, the indictments were drawn in a significantly different manner. In *Chubet* v. *United States*, 414 F.2d 1018 (8th Cir. 1969), one defendant was named in six counts and the other defendant was named in two of the six, but not in the other four counts. There was no allegation linking Chubet with the transactions covered by the other four counts, or that the transactions were connected in any way. It was held that there had been a misjoinder as to Chubet. In *Metheany* v. *United States*, 365 F.2d 90 (9th Cir. 1966), a misjoinder was declared where two persons were jointly indicted for separate, but similar acts and there was no allegation or showing that the defendants were engaged in the same series of acts. In *King* v. *United States*, 355 F.2d 700 (1st Cir. 1966), two separate indictments were tried together under Rule 13, Fed. R. Crim. P. and this was held to be a misjoinder, since the only connection between them was that they were "substantially the same kinds of transactions." 355 F.2d at 702, n.2. Though both the *Chubet* and *King* opinions discuss Rule 8(b) and the various factors which favor and mitigate against joinder of defendants, in both cases there was a pretrial motion for severance which was denied.

Rule 14, Fed. R. Crim. P.,[2] provides for relief from preju-

[2] **Rule 14. Relief from Prejudicial Joinder**
If it apears that a defendant or the government is prejudiced by a joinder of offenses or of defendants in an indictment or information or by such joinder for trial together, the court may order an election or separate trials of counts, grant a severance of defendants or provide whatever other relief justice requires. In ruling on a motion by a defendant for severance the court may order the attorney for the government to deliver to the court for inspection in *camera* any statements or confessions made by the defendants which the government intends to introduce in evidence at the trial.
As amended Feb. 28, 1966, eff. July 1, 1966.

dicial joinder. Among his pretrial motions the appellant included one to enter an order:

> "Granting the defendant, Joseph Russo, a separate trial if the government proposes to offer in evidence an alleged statement or confession of Dr. Donald Lieberwitz, if any."

The prosecution responded that neither defendant had made any inculpatory statements to agents or officers of the United States and that a memorandum of an interview with Dr. Lieberwitz would be submitted to counsel for both defendants. The record indicates that this was done some five months before the trial began. On the first day of the eight-week-long trial Judge Thornton, at the request of Dr. Lieberwitz, told the jury that evidence offered in relation to Dr. Russo would not be binding on his co-defendant. Following this copies of DSR's submitted by Dr. Russo were admitted into evidence over objections of the co-defendant that he was not connected with these records. Although similar objections were made throughout the trial, no unqualified motion for a severance was ever made.

It was held in *Cupo* v. *United States*, 359 F.2d 990 (D.C. Cir. 1966), *cert. denied*, 385 U.S. 1013 (1967), that failure to request a severance is a waiver of any rights under Rule 8. The only attempt to obtain separate trials in the district court was Russo's motion for such an order *if* the prosecution intended to use a confession or statement of his co-defendant. Since no motion was made on the basis of a misjoinder under Rule 8(b), the issue cannot be raised for the first time on appeal. *United States* v. *Del Purgatorio*, 411 F.2d 84 (2d Cir. 1969).

Appellant insists that, even though he did not clearly and unequivocally move for severance, there was no proof "of existence of a common plan" and therefore the indictment constituted a prejudicial misjoinder. The Supreme Court has held that the trial judge has a continuing duty to grant a severance if it appears that a joint trial is producing prejudice to either

defendant. *Schaffer* v. *United States*, 362 U.S. 511 (1960). In that case, however, the only thread which connected the defendants was a conspiracy charge which was dismissed at the close of the Government's case. Yet the Court held it was not prejudicial as a matter of law to permit the joint trial to continue though only separate acts of the defendants remained for submission to the jury.

Both defendants emphatically denied that a common scheme existed and there was no direct evidence of its existence. The record abounds, however, with circumstantial evidence of a joint scheme. The defendants conducted their medical practice in shared quarters, with Lieberwitz paying 50% of his gross receipts to Russo. Furthermore, ten of the twelve patient witnesses who testified stated that they had been treated by both doctors. Each of them identified DSR's submitted by both doctors for medical procedures which they testified were not performed. For example, one patient witness said he went to the clinic only for colds, never for problems with his limbs or joints and that he received no shots in the right arm or hip. Yet the prosecution introduced eight DSR's billed by Dr. Russo to Blue Shield in which it was claimed that this patient received treatment consisting of one arthrocentesis of the left hip, one aspiration of the bursa of the left hip, four arthrocenteses of the right shoulder and two aspirations of the bursa of the right shoulder. Also introduced were nine DSR's submitted by Dr. Lieberwitz claiming payment for nine separate procedures of arthrocentesis of the right shoulder on this same patient. This pattern of both doctors billing Blue Shield for the same medical procedures on individual patients which the patient's testimony indicated were not performed was repeated for ten of the twelve patient witnesses. It was not plain error for the district court to fail to grant a severance to Dr. Russo in view of this evidence. Fed. R. Crim. P. 52(b). The pattern of similarity is too strong to require its acceptance as resulting from mere coincidence. There was no prejudicial misjoinder of defendants.

II. The Computerized Statistical Evidence

Appellant has mounted a broad attack on the admission by the court of the 1967 annual statistical run of Blue Shield of Michigan. In the first place it is claimed that this evidence does not qualify as a business record under 28 U.S.C. § 1732(a), the Federal Business Records Act. That statute establishes the admissibility in federal courts of any writing or record, made as a memorandum or record of an act or transaction, as evidence of such act or transaction if made in the ordinary course of business. This is an exception to the hearsay rule. The uncontradicted testimony of two witnesses established that the 1967 statistical run was a regularly maintained business record of Blue Shield and was made in the ordinary course of business. It was also shown that this record was relied upon by the company in conducting its business, particularly with reference to its auditing and actuarial procedures. The appellant maintains that the annual statistical run is not the record of any act or transaction and that only the original DSR's should have been admitted to prove the "act" of payment for medical procedures.

Computer printouts are not mentioned in the Federal Business Records Act. However, no court could fail to notice the extent to which businesses today depend on computers for a myriad of functions. Perhaps the greatest utility of a computer in the business world is its ability to store large quantities of information which may be quickly retrieved on a selective basis. Assuming that properly functioning computer equipment is used, once the reliability and trustworthiness of the information put into the computer has been established, the computer printouts should be received as evidence of the transactions covered by the input. No evidence was introduced which put in question the mechanical or electronic capabilities of the equipment and the reliability of its output was verified. The procedures for testing the accuracy and reliability of the information fed into the computer were detailed at great length by the witnesses. The district court

correctly held that the trustworthiness of the information contained in the computer printout had been established.

The appellant also maintains that the computer printout should not have been received in evidence because it was not prepared at the time the acts which it purports to describe were performed or within a reasonable time thereafter as required by 28 U.S.C. § 1732(a). However, the evidence clearly shows that a record of payment was made at the time each DSR was paid by Michigan Blue Shield and that this record was referred to as the paid claims file. This file consisted of reels of magnetic tape which reflected every payment to a doctor in the year 1967. Since the computer printout is just a presentation in structured and comprehensible form of a mass of individual items, it is immaterial that the printout itself was not prepared until 11 months after the close of the year 1967. It would restrict the admissibility of computerized records too severely to hold that the computer product, as well as the input upon which it is based, must be produced at or within a reasonable time after each act or transaction to which it relates.

The Federal Business Records Act was adopted for the purpose of facilitating the admission of records into evidence where experience has shown them to be trustworthy. It should be liberally construed to avoid the difficulties of an archaic practice which formerly required every written document to be authenticated by the person who prepared it. *Gilbert* v. *Gulf Oil Corporation*, 175 F.2d 705 (4th Cir. 1949); *Gradsky* v. *United States*, 342 F.2d 147 (5th Cir. 1965), *vacated and remanded on other grounds*, 383 U.S. 265 (1966). The Act should never be interpreted so strictly as to deprive the courts of the realities of business and professional practices. *Harris* v. *Smith*, 372 F.2d 806 (8th Cir. 1967).

Appellant insists that the 1967 statistical record was a "summary" which is not admissible, citing *Melinder* v. *United States*, 281 F. Supp. 451 (W.D. Okla. 1968). That case involved an exhibit prepared by an Internal Revenue agent for use at the

trial of an income tax case. It was not a record produced in the ordinary course of business and was merely a recapitulation of certain information which had not been introduced to verify it in the case. The annual statistical run of Blue Shield of Michigan is not a summary, since it contains a record of every claim paid by the organization during a given year. The information contained in it is arranged in a predetermined manner and classified according to medical procedures. However, all paid claims are included and all compensable procedures are covered. It is important to distinguish the entire printout of the 1967 annual statistical run from a separate item of evidence consisting of a summary of portions of the printout. The witness Smith did summarize portions of the annual statistical record and did relate these summaries to the individual doctor's profiles of the defendants. Nevertheless, the entire statistical run was produced by the prosecution as a business record prepared in the ordinary course of business long before the time of the trial. Although summaries may or may not be admissible in evidence according to the circumstances of a particular case, we hold that the computer printout offered in evidence in this case was an original record and not a mere summary.

The appellant maintains that no proper foundation was laid for the admission of the 1967 annual statistical record. We disagree. The witnesses Smith and Mrachina were qualified as experts by education, training and experience and they showed a familiarity with the use of the particular computers in question. The mechanics of input control to assure accuracy were detailed at great length as was the description of the nature of the information which went into the machine and upon which its printout was based. In *United States* v. *De Georgia*, 420 F.2d 889 (9th Cir. 1969), the computerized records of Hertz Corporation were admitted for the purpose of showing that a particular automobile was not involved in any rental or lease activity during a certain period of time. An employee of Hertz was permitted to testify, based on the

computer information, that an automobile found in the custody of the defendant at the time of his arrest was stolen from the Hertz lot since it had not been rented or leased. As the opinion points out, the foundation for admission of such evidence consists of showing the input procedures used, the tests for accuracy and reliability and the fact that an established business relies on the computerized records in the ordinary course of carrying on its activities. The defendant then has the opportunity to cross-examine concerning company practices with respect to the input and as to the accuracy of the computer as a memory bank and retriever of information. The concurring opinion in *De Georgia* emphasizes the necessity that the court "be satisfied with all reasonable certainty that both the machine and those who supply its information have performed their functions with utmost accuracy." 420 F.2d at 895. This opinion goes on to say that the trustworthiness of the particular records should be ascertained before they are admitted and that the burden of presenting an adequate foundation for receiving the evidence should be on the parties seeking to introduce it rather than upon the party opposing its introduction. We believe that in this case the prosecution proved the essential elements upon which the district court could, and did, conclude that the annual statistical run of Blue Shield of Michigan was a trustworthy record which was entitled to be received in evidence under the Federal Business Records Act. Two well-reasoned state court opinions support this conclusion. See *Transport Indemnity Company* v. *Seib*, 178 Neb. 253, 132 N.W. 2d 871 (1965); *King* v. *State ex rel. Murdock Acceptance Corporation*, 222 So. 2d 393 (Miss. 1969).

Appellant also complains that he was not given an opportunity to prepare his defense to the computerized material used by the prosecution. In *United States* v. *Stifel*, 433 F.2d 431 (6th Cir. 1970), *cert. denied*, 401 U.S. 994 (1971), this Court held that if the Government uses highly sophisticated scientific evidence (in that case, neutron activation analysis)

involving time consuming and expensive laboratory tests, it must allow time for a defendant to make similar tests. The *Manual for Complex and Multidistrict Litigation* deals at some length with the use of computer evidence. Its admissibility is strongly defended where the records have been kept in the regular course of business and its reliability has been demonstrated. The Manual further states,

> It is essential that the underlying data used in the analyses, programs and programming method and all relevant computer inputs and outputs be made available to the opposing party far in advance of trial. This procedure is required in the interest of fairness and should facilitate the introduction of admissible computer evidence. Such procedure provides the adverse party and the court with an opportunity to test and examine the inputs, the program and all outputs prior to trial. (p. 88).

On March 22, 1971 appellant filed a request for particulars in which he sought information about the evidence which would be used in support of the charges against him. On April 27, 1971 the government filed its response and forwarded to the attorneys for appellant a number of documents relating to the request for particulars. At the same time the Assistant U. S. Attorney forwarded to the attorneys for the appellant certain documents, including – "[A] statistical summary for 1967 compiled from the records of Blue Shield of Michigan. It compares the number of claims filed for certain services by the defendants as against the total number filed by all doctors in the State of Michigan." So far as the record shows, no discovery steps were taken by the appellant between the time of the disclosure by the prosecution of the nature of this particular evidence and the beginning of the trial on September 14, 1971 despite the fact that Rule 16(b) Fed. R. Crim. P. provides for discovery and inspection by a defendant in a criminal case. At the trial Charles Smith's testimony compared the number of claims made by Drs. Russo and Lieberwitz for five particular medical pro-

cedures with those made by all of the doctors in Michigan. This summary was prepared by the witness from two sources. The number of claims paid to Drs. Russo and Lieberwitz was determined from the individual doctor's profiles prepared for each one of the defendants concerning which there is no contention on appeal. The information as to the total number of claims paid all doctors in Michigan in the five categories of medical procedures was based on the annual statistical run which was offered and accepted in evidence. In view of the enclosure of the identical summary in the letter of April 27, there was no surprise or sudden, unexpected production of this evidence. Mr. Smith was cross-examined vigorously as to the manner in which the annual statistical run was produced.

Furthermore, on the third day of the trial, September 16, 1971, there was a discussion between the court and counsel concerning exhibits. The prosecuting attorney referred to the fact that he had furnished statistics to counsel for the defendant pursuant to the court's pretrial order and stated that statistics showing the volume of claims in certain categories by the defendants would be compared with the total volume of such claims paid to all doctors throughout Michigan. On September 24, 1971 the witness Smith was recalled for the purpose of testifying about individual doctor's profiles and the annual statistical run of his employer. The court recalled to the attorneys that there had been a previous discussion of this offer of proof and that he had requested attorneys to be prepared to offer authority for their positions. When counsel for appellant complained that the information included in the annual statistical run was exclusively in the control of Blue Shield the court reminded him that he had a right to get an order which would have permitted him to go into the plant and study the whole process, and had not done so. The court ruled that the summary evidence offered by the witness Smith could be introduced because the primary evidence upon which the summary was based was in the courtroom and available for inspection and use in cross-examination by ap-

pellant. The prosecuting attorney pointed out again that the original of the computer run for the 1967 annual statistical report was available to counsel for the defendants, that the doctors' profiles and the vouchers from which they were constructed were also available for examination by counsel.

In cross-examining the witness Smith on September 28, 1971 the defense for the first time asked about other information that Blue Shield might furnish from its computer for comparison with the statistics included in his testimony. At no time prior to the trial or after the September 14th conference with the court did the defense make any effort to require the prosecution or Blue Shield to make its computers available to the defendants or to an expert employed by them or even to provide other information from the computers which was not then available. The computerized annual statistical run was not introduced into evidence and presented to the jury until September 30, 1971. Defense counsel were given an opportunity to examine the exhibit and to cross-examine both Mr. Smith and Mr. Mrachina extensively concerning it. The prosecuting attorney stated that the reason for introducing the annual statistical run as an exhibit was to provide a foundation for the testimony of Mr. Smith. The court pointed out that the annual statistical run itself was not a summary but a primary and original record constantly used by the company and was admissible in support of the testimony relating to portions of the exhibit by the person under whose supervision it was prepared.

In *United States* v. *Kelly*, 420 F.2d 26 (2d Cir. 1969), despite a motion for discovery of scientific tests which would be relied upon, the Government failed to inform the defendant of a neutron activation test which it had performed and the defendant only became aware of it at the trial when the Government sought to introduce its exhibits. The defendant objected and requested a month's continuance in the trial to carry out its own neutron tests. The court held that fairness requires a disclosure, in advance, of the results of a scientific test

in order to give the defendant an opportunity to conduct his own tests. The present case differs from *Kelly* in several respects. In the first place, in that case there was a motion for discovery as to scientific tests and secondly, there was a motion for a continuance to permit the defendants to conduct their own tests. Neither of these steps was taken by appellant. We conclude, as did the trial judge, that appellant had ample notice of the nature of the statistical evidence which the prosecution planned to use and chose to attempt to discredit this evidence by means of cross-examination rather than availing himself of discovery and the use of expert witnesses of his own choosing. It was within the discretion of the trial judge to admit the expert testimony of the witness Smith and to permit the introduction of supporting evidence in the form of the annual statistical run after proper foundation had been laid by Smith and the witness Mrachina. Much of the objection to admission of the computerized statistics was held by the trial judge to go to the weight of the evidence rather than its admissibility. This ruling was correct in view of the language contained in 28 U.S.C. § 1732(a) —

> All other circumstances of the making of such writing or record, including lack of personal knowledge by the entrant or maker, may be shown to affect its weight, but such circumstances shall not affect its admissibility.

Appellant also complains that the computerized information did not bear directly on the question of guilt or innocence and encouraged the jury to draw unwarranted inferences. The trial court ruled, and we agree, that the testimony of Smith supported by the computerized statistics, when considered in connection with the testimony of Dr. Thompson, furnished an inference from which the jury could properly conclude that the defendants did not actually perform the extremely large numbers of certain designated medical procedures for which they were paid in the year 1967. It is also contended that the court failed to give a qualifying instruction with respect to the

statistical evidence. The record discloses that the court instructed the jury that the summaries prepared by the witness Smith and admitted in evidence were not in and of themselves evidence or proof of any facts and were used only as a matter of convenience. The court further instructed that "If and to the extent that you find they are not in truth summaries of facts or figures shown by the evidence in the case, you may disregard them entirely." The court also gave a comprehensive instruction on the right to draw reasonable inferences from established facts and charged that inference might not be built upon inference. We believe that the in-instructions, read as a whole, fairly and adequately charged the jury on all of the issues in the case. *Kowalchuk* v. *United States*, 176 F.2d 873 (6th Cir. 1949).

III. Other Issues

Appellant claims error in the ruling of the trial court that the crime charged to Russo and his co-defendant was similar to a conspiracy. As has been pointed out, early in the trial, the court advised the jury that evidence which was connected with only one of the defendants could not be considered against the other. Furthermore, the instructions to the jury contained the following charge:

> "It is your duty to give separate personal considerations to the case of each individual defendant. When you do so, you should analyze what the evidence shows with respect to that particular defendant leaving out of consideration entirely any evidence admitted solely against some other defendant or defendants. Each defendant is entitled to have his case determined from his own acts and statements, and the other evidence in the case which may be applicable to him."

Citations in appellant's brief to holdings that guilt is a personal matter are correct statements of the law. However, the statement, repeated several times in the brief of appellant, that the defendants in this case were not charged with any joint

endeavor is incorrect. While no conspiracy was charged, a single scheme to defraud was charged against both. In *United States* v. *Grow*, 394 F.2d 182 (4th Cir.), *cert. denied*, 393 U.S. 840 (1968), it was held that,

> [t]he nature of proof in a scheme to defraud, involving two or more persons, is analogous to the nature of proof in a consipracy. The acts and declarations of each party to the scheme made in furtherance or execution thereof are admissible against all. 394 F.2d at 203.

Appellant also contends that the court erred in several respects with regard to the jury. We have examined each of these contentions carefully and find no substance in them. Appellant was not entitled to have every subscriber to Blue Shield disqualified for cause, since the answers of the veniremen who were questioned about their membership indicated that it would not prejudice them in any way if taken as members of the jury in this case. It is not an abuse of discretion to refuse a challenge for cause when the court's questioning discloses that the prospective juror is unbiased. *Dennis* v. *United States*, 339 U.S. 162 (1950); *United States* v. *Smith*, 393 F.2d 687 (6th Cir.), *cert. denied*, 393 U.S. 885 (1968).

The court did not commit error in permitting the jury to have the indictment during its deliberation since an instruction was given that the indictment is not evidence of guilt and only contains a statement of the charges. *Garner* v. *United States*, 244 F.2d 575 (6th Cir.), *cert. denied*, 355 U.S. 832 (1957). The appellant did not object at the time the indictment was handed to the foreman and in fact made the statement that Dr. Russo had no objection to the indictment.

Appellant complains that evidence of allegedly fraudulent "work excuses" was erroneously admitted during the trial. There was some evidence that the defendants had filled out work excuses for employees of various companies in the Detroit area without actually conducting examinations to determine the reasons for their absence from work. This evidence was not introduced into the case for the purpose of

showing that appellant engaged in some totally unrelated crime or illegal activity. One patient witness who testified for the prosecution, J. C. Rex, stated that he went to Dr. Russo's clinic to obtain a work excuse. Evidence was then introduced that Blue Shield was billed for a bursa aspiration and an arthrocentesis purportedly performed on this patient on the same date. The witness, J. C. Rex, testified that he received neither of these treatments. Both Dr. Russo and Dr. Lieberwitz then testified that, though they did make out work excuses for their patients, to their knowledge all of the excuses which they had written were legitimate. In rebuttal the prosecution produced one Horace Walker, a former employee of Ford Motor Company who testified to his success in obtaining fraudulent work excuses at the clinic. We regard the evidence concerning work excuses to be admissible as tending to show a common scheme or plan in view of the circumstances under which the matter of work excuses was first broached in this case. *United States* v. *Neal*, 344 F.2d 254 (6th Cir. 1965).

We have carefully considered each of the other assignments of error made by the appellant and find all of them to be without merit. Reviewing the evidence in the light most favorable to the government following conviction, *United States* v. *Wages*, 458 F.2d 1270 (6th Cir. 1972), we find that all of the essential elements of the mail fraud statute were proven and that the verdict of the jury finding appellant guilty of 28 counts is supported by competent evidence. A number of matters relied upon by appellant were not brought to the attention of the trial court and were raised for the first time on appeal. Ordinarily such matters cannot be considered by an appellate court. *United States* v. *Miriani*, 422 F. 2d 150 (6th Cir.), *cert. denied*, 399 U.S. 910 (1970). While 52(b) of the Fed. R. Crim. P. permits us to notice plain error, its provision should not be lightly invoked. *Gariepy* v. *United States*, 220 F.2d 252 (6th Cir.), *cert. denied*, 350 U.S. 825 (1955). A consideration of the entire proceedings convinces us that no reversible error was committed in this trial. Therefore the judgment of the district court is affirmed.

Appendix B.

No. 72-1846

UNITED STATES COURT OF APPEALS
FOR THE SIXTH CIRCUIT

UNITED STATES OF AMERICA
Plaintiff-Appellee

v. ORDER

JOSEPH RUSSO
Defendant-Appellant

[Filed September 5, 1973.]

BEFORE: PHILLIPS, Chief Judge; and LIVELY, Circuit Judge.

This cause came on to be heard on defendant-appellant's petition for rehearing, and upon consideration the Court finds that this petition is not well taken and should be denied.

It is therefore ORDERED that the petition for rehearing filed herein be and it hereby is denied.

ENTERED BY ORDER OF THE COURT
James A. Higgins
Clerk

Appendix C.

United States Constitution
Amendment V

No person shall be held to answer for a capital, or otherwise infamous crime, unless on a presentment or indictment of a Grand Jury, except in cases arising in the land or naval forces, or in the Militia, when in actual service in time of War or public danger; nor shall any person be subject for the same offense to be twice put in jeopardy of life or limb; nor shall be compelled in any criminal case to be a witness against himself, nor be deprived of life, liberty, or property, without due process of law; nor shall private property be taken for public use, without just compensation.

Amendment VI

In all criminal prosecutions, the accused shall enjoy the right to a speedy and public trial, by an impartial jury of the State and district wherein the crime shall have been committed, which district shall have been previously ascertained by law, and to be informed of the nature and cause of the accusation; to be confronted with the witnesses against him; to have compulsory process for obtaining witnesses in his favor, and to have the Assistance of Counsel for his defence.

Federal Rule of Criminal Procedure 8

(*a*) *Joinder of Offenses.* Two or more offenses may be charged in the same indictment or information in a separate count for each offense if the offenses charged, whether felonies or misdemeanors or both, are of the same or similar

character or are based on the same act or transaction or on two or more acts or transactions connected together or constituting parts of a common scheme or plan.

(*b*) *Joinder of Defendants.* Two or more defendants may be charged in the same indictment or information if they are alleged to have participated in the same act or transaction or in the same series of acts or transactions constituting an offense or offenses. Such defendants may be charged in one or more counts together or separately and all of the defendants need not be charged in each count.

FEDERAL RULE OF CRIMINAL PROCEDURE 14

If it appears that a defendant or the government is prejudiced by a joinder of offenses or of defendants in an indictment or information or by such joinder for trial together, the court may order an election or separate trials of counts, grant a severance of defendants or provide whatever other relief justice requires. In ruling on a motion by a defendant for severance the court may order the attorney for the government to deliver to the court for inspection *in camera* any statements or confessions made by the defendants which the government intends to introduce in evidence at the trial.